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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,069	02/09/2007	Nils Eric Stjerna	10400C-000234/US	3299
30593 7590 06/11/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER KELLEHER, WILLIAM J	
			ART UNIT 3673	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,069	Applicant(s) STJERNA, NILS ERIC	
	Examiner WILLIAM KELLEHER	Art Unit 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the arrangement where slits are only provided between certain springs must be shown or the feature(s) canceled from the claim(s). Currently, all drawings show a slit between every spring. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3, 7, 9, 12, 15-16, 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites “essentially all” to refer to where slits are provided. The phrase “essentially all” is indefinite to the Examiner because the Examiner can not determine whether a slit is between ALL springs in ALL strings, or an amount less than ALL.

Claims 7 and 9 recite multiple dimensions, some which are more “preferable” than others. This renders the claim indefinite because the Examiner can not determine which sizes or dimensions are actually being claimed. Claim 12 similarly recites a “preferable” situation, rendering Claim 12 indefinite.

Claim 15 recites “comprises the partial steps of...” It is unclear to the Examiner what a partial step is.

Claim 23 (last line) recites “operate jointly with said means” when several means are claimed prior. It is unclear to the Examiner which means are being recited here.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 11-13, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Meutsch (U.S. Patent 1,455,847).

Regarding Claim 1, Meutsch discloses a spring mattress with longitudinal strings comprising a plurality of interconnected coil springs enclosed in covers, a plurality of such parallel strings being arranged side by side and interconnected by surface attachment between abutting surfaces (17 of Meutsch is considered to be a surface attachment which keeps abutting surfaces of each of Meutsch's strings together), wherein a slit (16) is provided between at least two springs located adjacent to one another within the same string, which slit allows an increased interjacent separation distance to be formed between said adjacent springs.

Regarding Claim 2, Meutsch discloses a spring mattress as claimed in claim 1, wherein the slit is provided in such manner that it is completely enclosed between the upper and the lower part of the string.

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Regarding Claim 3, Meutsch discloses a spring mattress as claimed in claim 1, wherein slits are provided between essentially all adjacent springs in essentially all the strings arranged in parallel.

Regarding Claim 5, Meutsch discloses a spring mattress as claimed claims 1, wherein the cover material is joined together on both sides along the slit to close the covers along the slit.

Regarding Claim 11, Meutsch discloses a method of manufacturing a spring mattress, comprising the steps of: arranging coil springs in such manner that they are enclosed in covers in longitudinal strings, and interconnecting a plurality of parallel strings side by side by surface attachment between abutting surfaces, wherein the further step of providing a slit between at least two springs located adjacent to one another within the same string, which slit allows an increased interjacent separation distance to be formed between these adjacent springs. Meutsch discloses enclosed springs, interconnection of strings, and providing a slit.

Regarding Claim 12, Meutsch discloses a method as claimed in claim 11, wherein the at least one slit is provided in such manner that it is completely enclosed between the upper and the lower part of the string.

Regarding Claim 13, Meutsch discloses a method as claimed in claim 11, further comprising joining together of the cover material on both sides along the slit to close the covers along the slit.

Regarding Claim 15, Meutsch discloses arranging a strip of a cover material so that it is folded over springs arranged in succession therebetween,

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providing a longitudinal joining line at the open end of the strip thus folded (Meutsch is closed at the top and bottom of each string), and arranging, before or after providing the longitudinal joining line, at least one transverse joining line between adjacent springs in each pair of springs. Meutsch shows that the cover is joined where the slit is formed and is therefore considered to disclose transverse joining lines.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 7-10, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meutsch.

Regarding Claim 4, Meutsch discloses the apparatus of Claim 1, but does not disclose slits located between only some of the springs. However, the Examiner takes Official Notice that it is well known in the art of mattresses to vary the properties of a mattress to create "zones." Creating zones is a well known way to provide varying amounts of support to different portions of a user. Therefore, one of ordinary skill in the art would have recognized that Meutsch

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could be modified to create zones of varying properties to provide Meutsch with the predictable established function of zones (which is to provide varying amounts of support to different portions of a user).

Regarding Claims 7-9, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sizes, ratios, and dimensions claimed, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding Claim 10, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a weldable material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Regarding Claim 16, one of ordinary skill in the art would have recognized that the slits could be performed at the same time as the transverse joining lines to reduce the amount of time required to create the apparatus.

5. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meutsch in view of Stumpf (U.S. Patent 4,578,834).

Meutsch does not disclose gluing or welding. Stumpf, however, discloses, in Figure 4, using an adhesive at 28 to “adhere a pair of barrel-shaped pocketed coil springs together.” One of ordinary skill in the art would have recognized that

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Meutsch could also use adhesive to provide Meutsch with the predictable established function of adhering a pair of barrel-shaped pocketed coil springs together.

6. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpf (U.S. Patent 4,986,518) in view of Meutsch and Stumpf ('834).

Regarding Claims 17 and 20, Stumpf ('518) discloses means for arranging coil springs enclosed in covers in longitudinal strings (See Figure 2). Stumpf ('834) gives motivation to add a surface attachment between abutting surfaces (see discussion of adhesive above). Stumpf ('518) does not disclose means for creating a slit. Meutsch discloses a slit between springs. One of ordinary skill in the art would have recognized that slits (and the associated machinery needed to create them) such as Meutsch's could be added to the apparatus of Stumpf ('518) to provide Stumpf with the predictable established function of the slits (which is to allow the springs to flex in relation to one another or to allow a stiffener such as 17 of Meutsch to be added).

Regarding Claim 18, the slit of Meutsch is completely enclosed in the string.

Regarding Claim 19, Stumpf ('518) discloses slits which are closed along the covers.

Regarding Claim 21, Stumpf ('518) discloses means for arranging a strip of a cover material so that it is folded over springs arranged in succession therebetween, means for arranging a longitudinal joining line at the open end of

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the strip thus folded (Stumpf shows the cover closed at the top and bottom of each spring), and means for arranging at least one transverse joining line between each pair of adjacent springs. Stumpf shows the material "pinched" between each spring, creating a transverse joining line.

Regarding Claims 22 and 23, Stumpf shows a tool (at 100U) which is movable towards the cover material and therefore it would have been obvious to make a slit tool move in the same way. It would also have been obvious to put the tool adjacent to one another, because the transverse joining line and seam are at approximately the same location on the end product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM KELLEHER whose telephone number is (571)272-7753. The examiner can normally be reached on Monday - Friday 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter M. Cuomo/
Supervisory Patent Examiner, Art Unit 3673

/W. K./
Examiner, Art Unit 3673